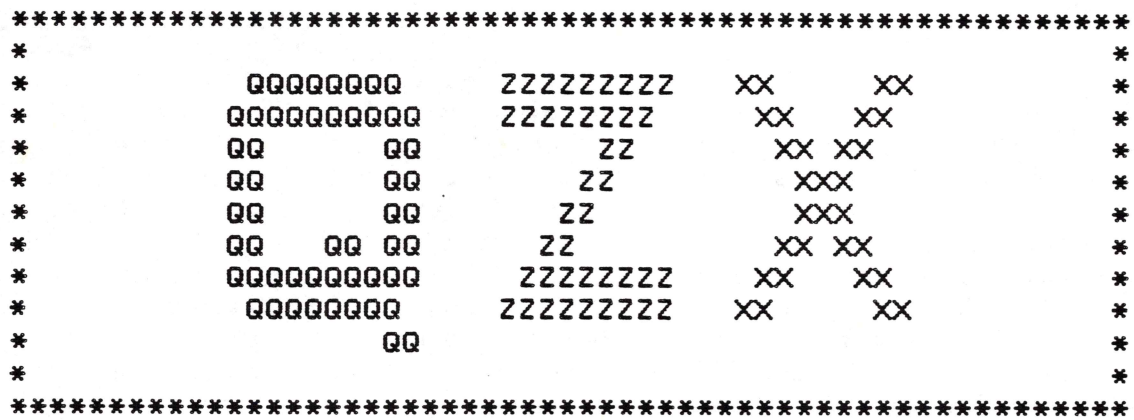
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The Journal Covering Amateur Radio & Sinclair Computers
ZX80; Micro-Ace; ZX81; TS1000, 1500, & 2068; QL; Z88
Alex. F. Burr, K5XY, Publisher
2025 O'Donnell Drive
Las Cruces, New Mexico
88001

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EDITOR'S NOTES
K5XY

Bo Barry has been cleaning out his house and offers some T/S goodies for the postage in the unclassified ads.

This month our subscription list actually grew, a very welcome development (which I fear is temporary). This growth is the result of a mention in QST and the work of WA6DLI on the west coast and KA1LM on the East Coast (at the Capital Fest held at the beginning of May). For more details of the Fest, see the report which KA1LM has written for this issue.

One of the big influences at the Fest was the MSDOS emulator for the QL, so we have two articles on that feature here.

Next month some more articles by LU8MAD on inovative uses of the TS1000.

UNCLASSIFIED ADS

WANTED: UNCLASSIFIED ADS for publication in QZX. Cost is 1 cent for each keystroke (characters, blanks, etc.). Payment must be included with order. This is an excellent way to sell your program or unwanted equipment, ask for help, or find a specific program. Send your ad with payment to QZK, 2025 O'Donnell, Las Cruces, NM 88001.

FOR SALE: Book Easy-up Antennas for Radio Listeners and Hams by Edward Noll. Paperback (1988) 162 pages. Originally $16.95, now $11.00 postpaid in the US. A Sams publication. The title says it all. Alex. F. Burr, K5XY, 2025 O'Donnell, Las Cruces, NM 88001.

QZX Discount: 15% discount on all orders mentioning QZX. T & C Services (address in ad in this issue).

WANTED: Several rolls of ZX-81 thermal printer paper (silver coated). Edward L. Radtke, 1602 Woodluck Ave., Louisville, KY 40205.

FREE: (for postage) T/S stuff. Syntax-80 mags (copies) 4 lbs; Syntax Quarterly (SQ) and Sync (copies + some originals) 8 lbs; Hot Z-II manual 1lb; Sinclair ZX-81 Basic manual 1 lb; ZX Compiler manual; Syncware News 4 issues 1 lb; TS Horizons Mags 4 lbs; Timex/Sinclair user Mags 4 lbs; Z-XLRS manual; Byte-Back modem & rs-232 manual 1 lb; Hunter RAM board manual 1 lb; Sci. Soft Disassem manual; ZXAD assy/debug manual. The above is available for the cost of postage (book rate) from ZIP 28075. Bo Barry, W4GHV, 8118 Kensington Lane, Harrisberg, NC 28075.

QL DATA INTERFACE 3
K5XY

This article postponed to the next issue to make room for more timely information.

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CATS CapitalFest
May 5, 6, and 7, 1989
KAILM

THEN

Boston, Massachusetts - October, 1983. The Boston Computer Society (BCS) Timex-Sinclair Users Group sponsored the first Timex/Sinclair Computer Festival. A big room was full of eager, excited people. Vendors hawked lots of new products. Timex proudly showed off their new 2068, 2050 modem, and their long-rumored microdrives. Little did the crowd know that in just a few short months, Timex would pull the plug on their dream.

SIX YEARS LATER

New Carrolton, Maryland - May 5, 6, and 7, 1989. The Capital Area Timex/Sinclair Users Group (CATS) hosted CapitalFest. The Timex-Sinclair faithful gathered to celebrate their dreams and their future. Again there was big room, full of eager, excited people. Again vendors hawked lots of products. Two dealers displayed Cambridge Computers' Z88 laptop. Another demonstrated the new MS-DOS emulator for the QL. Clubs and individuals showed off clever applications of Sinclair computers (everything from digitized video prints to tax preparation). There were bargains galore from liquidators and in the flea market. It was a fun, exciting weekend.

Over two hundred people, more than twenty vendors, and a dozen or so speakers spent Friday, Saturday, and Sunday looking, selling, buying, and just having a good time. CapitalFest was the place to see Sir Clive's latest creation, (the Z88) or to complete your collection of Sinclair products. The South Western PA Computer Users club brought their "museum collection" of every Sinclair ever made, and a vendor brought his Sinclair C5 electric cycle.

There were many contenders for best bargain of the show. Zebra Systems was liquidating their entire stock of T/S items. I picked up a Memotek 32K ram cartridge for $15.00, and saw the 64K unit go for $20. Call them - they may have something left and haven't dumped it into the Arthur Kill landfill! "Skip" Fisher was selling reconditioned RGB monitors for $65 to $100. I know several QL owners who's opinion of their machines will now be definitely "colored."

You could get anything from a ZX-81 to a QL at a great price. (I'll soon have a 1500 on packet). You could even buy a Z88 for under $400! The folks from LISA on Long Island, NY were taking orders for Digital Precision's MS-DOS emulator - probably the most sophisticated, albeit SLOW, software I've ever seen for the QL. Peter Hale (EMSoft), Time Designs, A+, Quanta and SyncWare/Quantum Levels were all there. User groups included Greater Cleveland, SW PA, and SMUG. Although the Sinclair North American User Group (SNUG) was not officially represented, a meeting on SNUG was held Saturday evening.

There were over a dozen speakers. All presented clever ideas for putting Sinclair computers to work. I missed several of the talks, so I'll just mention the ones I saw or heard others talk about. Al Boehm, from the Boston Computer Society, demonstrated a program he wrote for modeling cloud formation. The great-great-grandson of this program now runs on a Cray! An ophthalmologist showed the first system he developed for managing his practice - it runs on a ZX81! There were speakers on QL graphics, spreadsheets, and databases; desktop publishing; ZX-81 hardware; the Z88, and running a BBS with a 2068.

Nigel Searle was the featured speaker. For an hour, he shared with us some of the history and the mind of Sir Clive Sinclair. I learned a new fact about the QL - Sony almost "begged" Sinclair to use their then-new 3.5" drives for the QL! I also heard about Sinclair's engagement last January (no word on a wedding date, though!). Nigel couldn't tell us too much about new products, although the Z88 is doing well as the laptop of choice of MacIntosh owners.

Closer to our interests as communicators , Nigel said a Sinclair company, Shaye Communications, is becoming a big name in Britain's cellular telephone business with a small pocket telephone. Sir Clive has also developed a receiving antenna for Great Britain's upcoming direct broadcast satellite TV service. Imagine a flat plate about 24" on a side. You hang it out the side of your house, and voila! - you're getting 16 new TV channels. Sounds like he's developed a neat phased-array antenna. I wonder if it would be any good on Oscar Mode S?

I met several hams at the 'Fest. (Alex - I hope you get a new subscription or two for QZX out of this.) Of course, we discussed using Sinclair computers in ham radio. Next time, I think there should be a ham-radio display, with a packet radio demonstration, an antenna, morse, or logging program, and maybe one of AMSAT's satellite tracking programs. There are certainly enough hams active in Sinclair computers to try.

There's still plenty of interest and enthusiasm in the T/S community. We haven't all gone over to the bland, "me-too" world of MS-DOS. These computers are so inexpensive and easy to use that we're finding all sorts of ways to put them to use. My own opinion is that we're returning to the original roots of the home and hobbyist computer movement: the clever individual who wants to make these machines perform new tricks and do new, useful things. Not to make a lot of money, but just for the fun and excitement of it! I had a good time!

Steve Greene, KA1LM
Herndon, VA
via Packet: KA1LM @ WD4HXG, Sterling VA

Vendors and Dealers at Capitol Fest: (my apologies if I left someone out)

Peter Hale/EMSoft - software (and the 1st North American ZX81, presented by Sir Clive to the BCS at it's North American unveiling).

Wood & Wind Computing - crafted wood enclosures & QL software.

Sharps - Z88, accessories, and software, QLs

Zebra Systems - liquidating entire stock of Sinclair hardware & software.

Tim Woods - Time Designs, RMG Enterprises - Time Designs & Club Z88 Pipeline subscriptions, publications (and a Z88 demo in his hotel room Saturday night).

Long Island Sinclair/Timex - demonstrated and took orders for "The Solution" MS-DOS emulator for the QL from Digital Precision.

Eric Johnson Computer (FL) - Reconditioned 1500s, 2068s, miscellaneous hardware and software.

SyncWare News, Quantum Levels - subscription close-outs and some hardware.

Quanta - QL Software and memberships.

Skip Fisher - reconditioned RGB monitors

A+ Computer Response - closeout on QLs and accessories (big run on microfloppy cartridges!).

WMJ Data Systems - QL software

User Groups:

- Capitol Area Timex Sinclair Users Group (CATS) - hats, t-shirts, and software library (CapitalFest Host).
- South Western PA Computer User - Display of every Sinclair & Timex computer sold in the US.
- Greater Cleveland Sinclair Timex User Group - digitized images, subscriptions to The Ramtop.
- Sinclair Computer Users Society (SINCUS), Johnson City, NY.
- SMUG -
- SNUG - Evening meeting
- Toronto T/S Group - no booth, but several members attended
- Boston Computer Society T/S Group - ditto

750 North Yaleton Avenue
West Covina, CA 91790
April 25, 1989

QZX
Alex Burr K5XY
2025 O'Donnell Dr.
Las Cruces, NM 88001

Dear Alex,

Here is some news of sorts in the Sinclair World...QL division!

If you have had your ear to the ground you will know that a company in England called DIgital Precision, is one of the best suppliers of programs, exclusively for the QL and perhaps Thor or other QL clones or compatibles.

They recently have released an IBM Emulator program for the QL which they claim is not full of bugs, does all it is supposed to, and it 'faster' than the emulator for the Atari ST series.

Now I had a recent chance to play with this program and here is my mini report of this program sold by Sharps and others.

To really test it...unfairly it turned out...I thought I will make it work a program that gives the normal IBM/clone 4.77MHz a hard time and is recommended to be used with a math co-processor like the 8087. I use my version of the program is an AT clone working at 15MHz with the 80287-10MHz coprocessor.

The program I used as a test is the AMSAT Quiktrack program version 3.2 by Bob McGwier, N4HY. (A new version 4.0 will be released at DAyton Hamfest in May!).

Now before you hear what happened you should have two things firmly in mind:

1) Quikfpa (w/o 8087) still computes twenty or more parameters and updates them once each second using the real time clock of the computer to get time.

2) Digital Precision claims the emulation is suitable for normal text and graphics in business type programs, but NOT for interactive game graphics in real time.

The emulator itself is a disk for the QL called SOLUTION...it is loaded as a normal QL program in an 80 track (1440 sectors) drive.

When it has done its thing..it puts up a menu and invites you to put a bootable MS-DOS disk in drive 1 or 2 and hit number figure 1 or 2 respectively to load. The bootable disk can be MS-DOS 4.0, furnished with the program if you get the "Chocolate edition" or your own copy of an MS-DOS if you got the "Vanilla edition", or any bootable program that has COMMAND.COM on it.

I put it a bootable disk that had the AMSAT program, an autoexec.bat and a config.sys that called ANSI.SYS, necessary for

the graphics in this program. ANSI.SYS was also on the disk so it could be found.

While almost instantaneous on my IBM clone...the loading took perhaps three minutes to the first query which had the right date and time in both local and GMT (so it read the system clock and figured out the difference). After answering mode Graphics vs tabular, and choosing a satellite on two menus..it took almost another 10 minutes to put up a completed map with all parameters which included: world map in color, terminator (day/nite line), a big PLUS-Sign for the satellite and one for the Sun, the satellites footprint on the ground (radio range), and filled in the table for all the various values at the bottom of the map.

Now every thing was calculated and appeared proper and certainly in the right place. The total map was on the screen 14 minutes after turn on to insert the IMB emulator. On the AT clone the map was available in 30 seconds or so to answer questions.

I watched the display for a couple of hours and it did update parameters and redraw maps with new locations, footprints, etc. However, on close inspection all figures except perhaps the starting time..were incorrect as were the actual positions of the plots. Comparing screens of the two computers (I had to stop the IBM clone as it was changing every second), I could get a feel for what the trouble was.

The QL IBM emulator was faithfully doing every little thing it was told by the NH4Y program, but because each instruction to calculate a point had to be passed back and forth between the QL internals and the NH4Y program, by the time that routine was done, perhaps two minutes had passed. Now onto the next parameter, and it checks the clock for the time (or the value of the parameter at that time to be more correct) and gets a new figure offset in time two minutes later, when it should have been milliseconds from the last parameter calculated. So the whole process continues with a time warp between parameters, so all results are fictitious, except that are correct for one instant that no longer is relevant. So it is like steering a MOON Rover on the moon's surface from earth with a two minute delay time in radio signals.

Now I tried all the functions of the program, including tables, projections, data load and update to disk, etc. etc. Every thing worked as intended. The new data entered into the Keplerians to bring them up to date from the old floppy I used where done on the QL and properly transferred to the disk in a write operation. Nothing that was real time depended worked due to the variables being update each second by the real time clock.

The program was able to exit to new menus, quit to the A> prompt, and even format and copy disks between 3.5 inch drive and 5¼ inch drive (I had to put in my MS-DOS 3.2 to do this). By the way the MS-DOS 4.0 is buggered by DP to NOT work in IBMs or clones, only in the QL set-up. This is part of the licensing by Microsoft..so don't buy the SOLUTION just to get a copy of MS-DOS 4.0 to use on your IBM/clone. I used MS-DOS 3.2 that I had.

Now what is the result of all this?

First I think I proved that the SOLUTION is very well behaved as it did not crash or lockup once. (I goofed the first time around as I though it had died when it was just working quietly, and I hit the keyboard to see if I could get it's attention). Moral is don't touch the keyboard until a prompt appears. Same on quitting...you hit 0 or Q as a quit command for your particular program..and nothing immediately happens..just wait it is putting things away..soon the A> will appear.

The fact that it did all the complex graphics and calculations without a protest and presented them on the screen was a marvel! The fact that actual real time results were wrong is understandable considering the moving variables driver by the real time clock. The SOLUTION still allowed one to examine and see how the program worked even if it could not keep up with calculations for which a math co-processor is recommended.

I should point out that within the data entry..like changing a date from decimal e.g. 89 110.01283733 it came up with the correct translation (because that did not use a formula driven by the real time clock).

When I loaded the public domain shareware program PC-WRITE I had no trouble using this word processor typing as fast as I could..the screen updated perhaps one or two seconds behind me. If I made an error then it was a slight annoyance to wait for the cursor to back up with a half second delay to each keystroke. But if you sort of think of an IBM/clone working like a ZX-81 you have the idea. With all the features of the IBM/clone of course!

Now that is about all I had time to do before making this report. I am enclosing some poor Polaroids to show the screens.

Of course, the QL alone is better than an IBM/clone in almost all respects..I figure it cost $700 additional to make an IBM/clone even look like the screen of the QL with the Sinclair American RGB monitor (Kaga-Tokyo). The Psion programs are the equal of most shareware and better for most people that the expensive NAME programs that new clone owners get conned into buying. No home user needs the sophistication of DBase III or Wordperfect, or the agony of the old Wordstar. So what is the purpose of the SOLUTION? I see it as a way to use your QL..if a particular piece of software exist that is only in MS-DOS form. For almost any other reason in database, spreadsheet, or business graphics the QL product is just as good.

I don't know if the effect I got on the graphic screen not filling the QL screen area IS intended or because I have the British MG ROM and the Solution in USA version may have been tailored to the JSU ROM. Text portion of the AMSAT program filled and centered in the screen.

Like Dave Horiwitz says...I think SOLUTION passed with flying colors..in its claims! They didn't say it could do fast interactive graphics and it almost did...and certainly got everything correctly in place and never crashed. 73 Bob WA6DLI

DOS 4 A BOOK REVIEW

K5XY

One of the most important software developments in the Sinclair family of computers is the development of a working MSDOS emulator program for the QL. This program and related ideas are reviewed in another article in this issue. The emulation program makes available to QL owners a wide variety of public domain and commercial MSDOS programs including packet, RTTY, cw, satellite, and electronic calculational programs. This emulation program comes in two varieties - with and without DOS 4, the disk operating program for the system.

MSDOS is the most popular (but not only) operating system for IBM type personal computers. It has continually evolved since it supplanted CP/M as the most popular operating system. One can currently purchase three varieties of the program. Various versions of MSDOS 2, 3, and now 4 are being sold with new computers. The program was originally produced by MicroSoft with the cooperation of IBM. The later versions have been modified primarily by IBM; indeed the latest revision appears to be almost entirely the work of IBM.

The various versions have become more flexible, easier to use, and larger. This latest version in no exception. It occupies about 1.5 MB of disk space (two 720KB disks). Fortunately much of this space is taken up with utilities which do not have to stay in memory. The two major programing changes involve a new DOS shell and the ability to manage large quantities of memory. It is the first feature which will be of most intersest to QL users.

The DOS shell is a utility designed to make the operating system easy to use. It includes the ability to use a mouse and incorporates many of the easy-to-use features introduced to the computing world by the Macintosh computer.

The book, The New DOS 4.0, is designed to introduce the new user to the new DOS. The book assumes very little background on the part of the reader and introduces all the important features of the operating system. The book is written by real experts. All three authors worked for IBM on the development of this version. K. W. Christopher was a Development Programming Manager, B. A. Feigenbaum was the Architect and Lead Designer of the operating system, and S. O. Saliga was the Architect and Lead Designer of the new user shell. Together, they directed the development of the entire DOS 4.0 product and contributed a significant portion of the DOS code.

The book pays particular attention to the new DOS shell which makes the system much easier to use. You will find out how to do practically everything through the new user shell with pull-down menus, windows, and help screens that step the user through basic DOS services. Using either keyboard or a mouse, you will be able to find files, copy them, rename them, move them between directories or disks, and select them - all without typing back-slashes, colons. asterisks, or other cryptic symbols.

In short- a good book for new DOS users.

The New Dos 4.0 by K. W. Christopher, Jr., B. A. Feigenbaum, and S. O. Saliga (John Wiley & Sons, New York, 1989) 515 pp $22.95 ISBN 0-471-50257-X.

73, K5XY

QZX presents the best software & hardware projects available for the radio amateur. While the contents are believed to be accurate, no warranty is extended on any program or project. No investigation has been made of the claims or reputation of any advertiser. It would be greatly appreciated if all correspondence requiring an answer would be accompanied by a self-addressed stamped envelope (SASE). Copyright by QZX, 1989. All righs reserved, photocopying by permission only.

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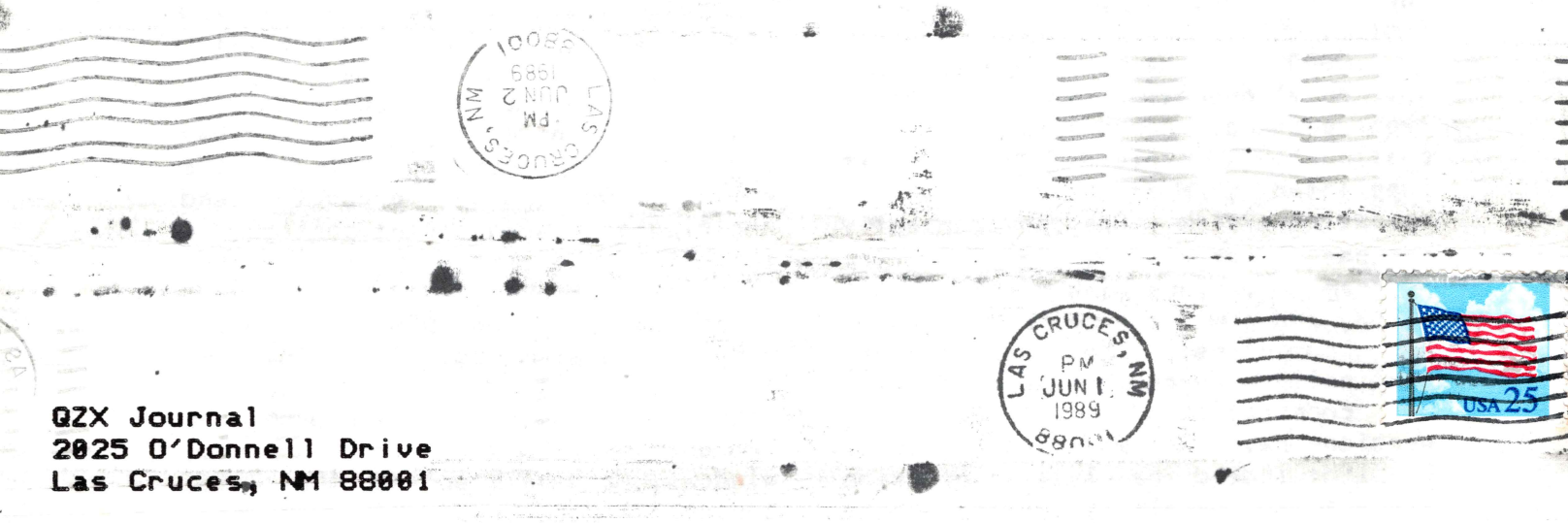

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